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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
|---|---|---|
| | 10/787,154 | LEE ET AL. |
| **Office Action Summary** | Examiner | Art Unit | |
| | Neil R. McLean | 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>19 November 2008</u>.

2a) ☐ This action is **FINAL**.     2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1,3,5-15,17,19-28 and 30-35</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1, 3, 5-15, 17, 19-28, and 30-35</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1.      A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection.  Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.  Applicant's submission filed on

11/19/2008 has been entered.

### *Status of Claims*

2.      Claims 1, 3, 5-15, 17, 19-28, and 30-35 are pending in this application.

        Claims 1, 3, 15, 17, 23, 28, 30 and 31 are amended.

        Claims 2, 4, 16, 18 and 29 are canceled.

### *Response to Arguments*

3.      Regarding Applicant's Argument:

        "It is respectfully submitted that the method, apparatus, image data processing

system and computer readable storage medium of amended independent claims 1, 15,

28 and 31 **are clearly implemented in a computer** which is connected to an image

forming apparatus, e.g., a digital camera. However, the methods of Inoue and Tanaka

are executed in the <u>digital camera.</u>"

Examiner's Response:

The Examiner respectfully disagrees with the Applicant that independent claims

1, 15, 28 and 31 are clearly implemented in a computer which is connected to an image

forming apparatus, e.g., a digital camera for the following reasons;

- Only independent Claim 31 claims a 'computer'. Claims 1, 15, and 28 <u>do
  not claim a computer</u>.

- Applicant discloses in Background of Invention, "<u>a conventional method</u> of
  printing an image using a printer, <u>by connecting a computer to a printer</u>"
  ([0005]). The Examiner perceives that this portion of the Applicant's
  disclosure to be the applicant citing "a conventional method" i.e., well
  known prior art, to which the Examiner agrees.

- Applicant further discloses "the demand for outputting an image stored in
  a digital camera directly to a printer <u>without the need for a computer</u>";
  [0006].

- Applicant further discloses the "<u>trade-off</u> between a compression ratio and
  an image quality"; [0008], and then in the Summary of Invention discloses
  a method to "optimize" the above mentioned difficulties. ([0010]).

4.     Regarding Applicant's Argument:

"Also, Inoue and Tanaka does not disclose the features of amended independent

claim 1, and similarly amended independent claims 15, 28, and 31 that disclose:

"wherein the variety of printing modes provide varying settings to account for factors including at least one of a degree of an image quality, a type of a printing paper, a printing color, and a type of image data, wherein the compression ratios corresponding to the variety of printing modes are stored on a recording medium."

Examiner's Response:

Inoue et al. further discloses wherein the variety of printing modes provide varying settings to account for factors including at least one of a degree of an image quality, a type of a printing paper, a type of image data, and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states where setting screens (menu screens) for an <u>image quality</u> are changed), and wherein the compression ratios corresponding to the variety of printing modes are stored on a recording medium (In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

## *Claim Rejections - 35 USC § 103*

5.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.      Claims 1, 3, 5-15, 17, 19-28, 30, and 32-34 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Inoue et al. (US 2001/0048472) in view of Tanaka et al. (US

7,224,480).

Regarding Claim 1: (Currently Amended)

        A method of compressing image data (An image quality selecting method and a digital camera

by which a pattern of a combination of the number of pixels and the compression rate can be presented to the user to

select a combination for an image quality; [0007], lines 1-9) comprising:

        detecting a specified compression ratio corresponding to a display mode (e.g., The

Fine mode corresponds with 1/4 JPEG compression, the Normal mode corresponds with 1/8 JPEG compression, and

the Basic mode corresponds with (1/16) JPEG compression as described in [0066], lines 8-11) selected by a

user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32,

a menu screen for image quality setting is displayed as shown in FIG. 7a) from compression ratios

corresponding to a variety of display modes (The number of imaging pixels can be selected from

2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode,

Normal mode, and Basic mode as described in [0066], lines 1-4); and

        compressing the image data according to the detected specified compression

ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11),

        wherein the variety of printing modes provide varying settings to account for

factors including at least one of a degree of an image quality, a type of a printing paper,

a type of image data, and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states

where setting screens (menu screens) for an image quality are changed), and wherein the compression

ratios corresponding to the variety of printing modes are stored on a recording medium

(In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression

ratios and printing modes to the user that this information must already reside and be allocated physically within a

particular storage location (address) of memory such that a read instruction can access the data and transfer it to the

display).


Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB

terminal (58 in Figure 5) and wherein an image file can be read out of the device memory

and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a

print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By

selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine

paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column

8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field

of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art

to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an

image by connecting a device such as a camera and a printer directly via a cable or

wireless communication without a PC is because it is easier, faster and convenient to

print image data since there are fewer steps required such as booting up a computer,

launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user

of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the

invention specified in order to directly transmit digital image data photographed by a

digital camera to a color printer.

Regarding Claim 2: (Canceled)

Regarding Claim 3: (Currently Amended)

Inoue et al. further discloses the method of claim 1, wherein the compression

ratios corresponding to the variety of printing modes are stored in a lookup table on the

recording medium (In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to

show the compression ratios and printing modes to the user that this information must already reside and be

allocated physically within a particular storage location (address) of memory such that a read instruction can access

the data and transfer it to the display).

Regarding Claim 4: (Canceled)

Regarding Claim 5: (Previously Presented)

Inoue et al. further discloses the method of claim 4, wherein the degree of image

quality includes at least a draft quality, a normal quality, and a best quality (The number of

imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be

selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4).

Regarding Claim 6: (Original)

Inoue et al. further discloses the method of claim 5, wherein the draft quality

yields a low first image quality and a high first image compression ratio (Note: The larger the

compression rate, the lower the level of compression is, thus the better the image quality is. The smaller the

compression rate, the higher the level of compression is, thus the lower the image quality.

The image compression rates can be selected from the three types: Fine mode, Normal mode, and **Basic**

**mode**. Order of listing the image quality in those modes is from superior to poor: the Fine mode for the best, the

Normal mode for the second best, and the Basic mode for the third.

In this case, for example, the **Basic mode corresponds with 1/16 (JPEG) compression** which is the

**lowest quality** as described in [0066] and [0067]).


Regarding Claim 7: (Original)

Inoue et al. further discloses the method of claim 6, wherein the normal quality

yields a second image quality higher than the first and a second compression ratio

lower than the first (In this case, for example, the Normal mode corresponds with 1/8 (JPEG) compression and

as a result the **image quality is higher** than the Basic mode with 1/16 (JPEG) compression as described in [0066]

and [0067]).


Regarding Claim 8: (Original)

Inoue et al. further discloses the method of claim 7, wherein the best quality

yields a third image quality higher than the second image quality and a third

compression ratio lower than the second compression ratio (In this case, for example, the Fine

mode corresponds with 1/4 (JPEG) compression which will yield a **image quality higher** than that of the Normal

mode which is 1/8 (JPEG) compression as described in [0066] and [0067].


Regarding Claim 9: (Original)

Inoue et al. further discloses the method of claim 1, wherein the printing is

selected by a user via a user interface (e.g., the Mode Dial 26 changes functions of the camera, and is

set by rotating the mode dial as described in [0040], lines 5-9).


Regarding Claim 10: (Previously Presented)

Tanaka et al. further discloses the apparatus of Claim 4, wherein the variety of

paper includes at least automatic, plain paper, inkjet paper, photo paper, transparency

films, special paper, greeting paper, and brochure paper (By selecting the print menu 92, a printing

paper size, color/monochrome printing, the type of paper (**plain paper**, fine paper, or the like) used for printing,

unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).


Regarding Claim 11:        (Original)

Inoue et al. further discloses the method of claim 3, wherein image resolution is

stored in the look up table (The number of imaging pixels can be selected from 2400x1800, 1280x960, and

640x480  Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that

this information must already reside and be allocated physically within a particular storage location (address) of

memory such that a read instruction can access the data and transfer it to the display).


Regarding Claim 12:        (Original)

Inoue et al. further discloses the method of claim 1, wherein the compressing is

performed on the image data by a data loss compression method (e.g., the JPEG lossy

compression method described in [0066]).


Regarding Claim 13: (Previously Presented)

Inoue et al. further discloses the method of claim 12, wherein the compressing is

preformed on the image data by a JPEG compression method (e.g., the JPEG lossy

compression method described in [0066]).

Regarding Claim 14:          (Original)

Tanaka et al. further discloses the method of claim 1, wherein the method is

perfromed for a print operation to print the image data (FIG. 5 depicts a view for explaining

connection between the photo-direct printer apparatus and a digital camera according to the embodiment).

Regarding Claim 15:          (Currently Amended)

Inoue et al. discloses an apparatus for compressing image data (An image quality

selecting method and a digital camera by which a pattern of a combination of the number of pixels and the

compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9)

comprising:

a compression ratio detection unit which detects a specified compression ratio

corresponding to a display mode (e.g., The Fine mode corresponds with 1/4 JPEG compression, the

Normal mode corresponds with 1/8 JPEG compression, and the Basic mode corresponds with (1/16) JPEG

compression as described in [0066], lines 8-11) selected by a user (When the item "image quality setting" is

selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is

displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of display

modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image

compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in

[0066], lines 1-4) and outputs the detected specified compression ratio (e.g., to the liquid crystal

monitor 40 in Figure 2); and

a data compression unit which compresses the image data according to the

detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as

described in [0054], lines 10-11),

wherein the variety of printing modes provide varying settings to account for

factors including at least one of a degree of an image quality, a type of a printing paper,

a type of image data, and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states

where setting screens (menu screens) for an image quality are changed), and wherein the compression

ratios corresponding to the variety of printing modes are stored on a recording medium

(In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression

ratios and printing modes to the user that this information must already reside and be allocated physically within a

particular storage location (address) of memory such that a read instruction can access the data and transfer it to the

display).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB

terminal (58 in Figure 5) and wherein an image file can be read out of the device memory

and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a

print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By

selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine

paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column

8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field

of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention specified in order to directly transmit digital image data photographed by a digital camera to a color printer.


Regarding Claim 16:        (Canceled)


Regarding Claim 17:        (Currently Amended)

Inoue et al. further discloses the apparatus of claim 15, wherein the compression ratios corresponding to the variety of printing modes are stored in a lookup table on the recording medium (In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 18:          (Canceled)

Regarding Claim 19: (Previously Presented)

Inoue et al. further discloses the apparatus of claim 18, wherein the variety of

image quality includes at least a draft quality, a normal quality, and a best quality (The

number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates

can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4).

Regarding Claim 20:          (Original)

Inoue et al. further discloses the apparatus of claim 19, wherein the draft quality

yields a low first image quality and a high first image compression ratio (Note: The larger the

compression rate, the lower the level of compression is, thus the better the image quality is.  The smaller the

compression rate, the higher the level of compression is, thus the lower the image quality.

The image compression rates can be selected from the three types: Fine mode, Normal mode, and **Basic**

**mode**. Order of listing the image quality in those modes is from superior to poor: the Fine mode for the best, the

Normal mode for the second best, and the Basic mode for the third.

In this case, for example, the **Basic mode corresponds with 1/16 (JPEG) compression** which is the

**lowest quality** as described in [0066] and [0067]).

Regarding Claim 21:          (Original)

Inoue et al. further discloses the apparatus of claim 20, wherein the normal

quality yields a second image quality higher than the first and a second compression

ratio lower than the first (In this case, for example, the Normal mode corresponds with 1/8 (JPEG)

compression and as a result the **image quality is higher** than the Basic mode with 1/16 (JPEG) compression as described in [0066] and [0067]).

Regarding Claim 22: (Previously Presented)

Inoue et al. further discloses the apparatus of claim 21, wherein the best quality yields a third image quality higher than the second image quality and a third compression ratio lower than the second compression ratio (In this case, for example, the Fine mode corresponds with 1/4 (JPEG) compression which will yield a **image quality higher** than that of the Normal mode which is 1/8 (JPEG) compression as described in [0066] and [0067].

Regarding Claim 23:

Inoue et al. further discloses the apparatus of claim 1, wherein the printing is selected by a user via a user interface (e.g., the Mode Dial 26 changes functions of the camera, and is set by rotating the mode dial as described in [0040], lines 5-9).

Regarding Claim 24: (Previously Presented)

Tanaka et al. further discloses the apparatus of Claim 18, wherein the variety of paper includes at least automatic, plain paper, inkjet paper, photo paper, transparency films, special paper, greeting paper, and brochure paper (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (**plain paper**, fine paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Regarding Claim 25:         (Original)

Inoue et al. further discloses the apparatus of claim 17, wherein image resolution

is stored in the look up table (The number of imaging pixels can be selected from 2400x1800, 1280x960,

and 640x480  Note: It is inherent in order for a display to show the compression ratios and printing modes to the user

that this information must already reside and be allocated physically within a particular storage location (address) of

memory such that a read instruction can access the data and transfer it to the display).


Regarding Claim 26:        (Original)

Inoue et al. further discloses the apparatus of claim 15, wherein the data

compression unit performs compression on the image data by a data loss compression

method (e.g., the JPEG lossy compression method described in [0066]).


Regarding Claim 27:        (Original)

Inoue et al. further discloses the apparatus of claim 26, wherein the data

compression unit performs compression on the image data by a JPEG compression

method (e.g., the JPEG lossy compression method described in [0066]).


Regarding Claim 28:        (Currently Amended)

Inoue discloses an image data compressing system (An image quality selecting method

and a digital camera by which a pattern of a combination of the number of pixels and the compression rate can be

presented to the user to select a combination for an image quality; [0007], lines 1-9) comprising:

a compression ratio detection section which detects a specified compression

ratio corresponding to a printing mode (e.g., The Fine mode corresponds with 1/4 JPEG compression,

the Normal mode corresponds with 1/8 JPEG compression, and the Basic mode corresponds with (1/16) JPEG

compression as described in [0066], lines 8-11) selected by a user (When the item "image quality setting" is

selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is

displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of printing

modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image

compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in

[0066], lines 1-4) and outputs the detected specified compression ratio (e.g., to the liquid crystal

monitor 40 in Figure 2); and

a data compression section which compresses the image data according to the

detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as

described in [0054], lines 10-11).


Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB

terminal (58 in Figure 5) and wherein an image file can be read out of the device memory

and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a

print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By

selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine

paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column

8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field

of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention specified in order to directly transmit digital image data photographed by a digital camera to a color printer.


Regarding Claim 29:        (Canceled)


Regarding Claim 30:

Inoue et al. further discloses the method of claim 29, wherein the compression ratios corresponding to the variety of printing modes are stored in a lookup table in the storage section (In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).


Regarding Claim 32:        (Previously Presented)

The method of claim 1, further comprising transmitting the compressed image

data to a printer (FIG. 5 depicts a view for explaining connection between the photo-direct printer apparatus and

a digital camera according to the embodiment).


Regarding Claim 33: (Previously Presented)

Claim 13 teaches the method.  Claim 33 is obvious in view of Inoue & Tanaka

because  the system is achieved using the method steps of Claim 13.


Regarding Claim 34: (Previously Presented)

Claim 14 teaches the method.  Claim 34 is obvious in view of Inoue & Tanaka

because the system is achieved using the method steps of Claim 14.


7.      Claims 31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Inoue et al. (US 2001/0048472) in view of Tanaka et al. (US 7,224,480) and further

in view of applicant's admission of well known prior art.


Regarding Claim 31:         (Currently Amended)

Inoue et al. discloses a computer readable storage medium encoded with

processing instructions for performing a method of compressing image data (An image

quality selecting method and a digital camera by which a pattern of a combination of the number of pixels and the

compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9)

comprising:

detecting a specified compression ratio corresponding to a display mode selected by a user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of display modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4); and

compressing the image data according to the detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11),

wherein the variety of printing modes provide varying settings to account for factors including at least one of a degree of an image quality, a type of a printing paper, a type of image data, and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states where setting screens (menu screens) for an image quality are changed), and wherein the compression ratios corresponding to the variety of printing modes are stored on a recording medium (In order for Figures 7a-7d to display menu screens, it is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB terminal (58 in Figure 5) and wherein an image file can be read out of the device memory and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field of endeavor of image processing: e.g., both art contain image quality selection methods. At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user. The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing. Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention specified in order to directly transmit digital image data photographed by a digital camera to a color printer.

Inoue & Tanaka do not disclose expressly wherein a computer performs a method of compressing image data.

Applicant discloses in Summary of Invention wherein a computer performs a method of compressing image data (In a conventional method of printing an image using a printer, by connecting a computer to a printer, ... The printer driver then compresses image data generated ... and finally printed. ([0005])).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a computer to compress image data. The suggestion/motivation for doing so would have been to perform an interative process by means of a computer. Therefore, it would have been obvious to combine Inoue & Tanaka's methods of setting print modes with Applicant's admission of well known prior art to obtain the invention as specified in claim 31.

Regarding Claim 35: (Previously Presented)

Claim 14 teaches the method. Claim 35 is obvious in view of Inoue & Tanaka and Applicant's admission of well known prior art because a computer-readable medium containing computer executed instructions is achieved using the method steps of Claim 14.

## Conclusion

6.    The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parulski et al. (US 5,402,170) discloses a portable, electronic camera is connectable to a computer for capturing an image and providing the captured image to the computer for storage therewith. The camera ergonomically acts like an independent, self-functioning peripheral device.

## Examiner Notes

7.     The Examiner cites particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.  Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well.  It is respectfully requested that, in preparing responses, the applicant fully considers the references in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or as disclosed by the Examiner.

     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is (571)270-1679.  The examiner can normally be reached on Monday through Friday   7:30AM-4:00PM EST.

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571.272.7437.  The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Neil R. McLean/
Examiner, Art Unit 2625

/David  K Moore/

Supervisory Patent Examiner, Art Unit 2625